

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WISCONSIN

WISCONSIN RESOURCES
PROTECTION COUNCIL, CENTER
FOR BIOLOGICAL DIVERSITY,
AND LAURA GAUGER,

Plaintiffs,

Case No. 11-cv-45

v.

FLAMBEAU MINING COMPANY,

Defendant.

**DEFENDANT FLAMBEAU MINING COMPANY'S
PROPOSED FINDINGS OF FACT - PENALTIES**

Defendant, Flambeau Mining Company ("FMC"), respectfully requests the Court make the following findings of fact as to penalties and other requested remedies based on the evidence presented at trial in this matter:

A. WDNR and WDOJ Determined That FMC Had The Correct Storm Water Permits To Discharge Storm Water On Site And Appraised FMC And Others Of This.

1. Wisconsin Department of Natural Resources ("WDNR"), the Wisconsin agency delegated authority by the United States Environmental Protective Agency ("EPA") to issue storm water permits, determined that FMC could discharge storm water from a .9 acre settling pond known as the .9 acre biofilter ("Biofilter") on site under its Mining Permit, pursuant to a provision of

Wisconsin's WPDES storm water regulations: NR 216.21(3) (now renumbered 216.21(4)).¹

2. WDNR has repeatedly indicated that FMC possessed all necessary permits to discharge any polluted storm water on site during the existence of the Biofilter.

3. WDNR repeatedly told FMC, members of the Plaintiffs, and others that FMC has the correct permit to discharge storm water on site.

4. The Wisconsin Department of Justice, through the Director of the Environmental Protection Unit, has also agreed that, during the relevant time period, FMC had all necessary permits to discharge storm water from the FMC site.

5. The manner in which WDNR has regulated FMC's storm water discharges is not unique to FMC. Currently, WDNR regulates all WPDES permit holders in the State of Wisconsin under NR § 216.

B. FMC Believed In Good Faith It Had All Required Permits.

6. At the time of the alleged Biofilter discharges, FMC honestly believed that it possessed all required permits to discharge storm water through the Biofilter.

7. At the time of the alleged discharges, FMC did not believe it was violating the Clean Water Act.

¹ Any stipulated facts are marked with the postscript ("s").

8. Had WDNR or the EPA required FMC to apply for and comply with any permit other than those that it possessed, FMC would have done so.

C. FMC Has Been In Full Compliance With The Permits Related To Storm Water Discharges That It Possessed.

9. FMC has no history of violating the Clean Water Act at the former mine site.

10. WDNR has confirmed that FMC has been in compliance with the terms and conditions of its permits addressing storm water management at the former mine site since their issuance.

D. FMC's Use of The Biofilter in 1998 Only Began After Extensive Public Hearings That Analyzed Storm Water Management in Addition to Other Parts of the Reclamation Plan.

11. FMC only began using the Biofilter after WDNR approved the construction of the Biofilter and any overflow of stormwater from it in 1998.

12. FMC operated a metallic mine on property located at N4100 Highway 27, Ladysmith, Wisconsin from 1993 to 1997 ("Mine Site"). Before active post-mining reclamation of the Mine Site began, the City of Ladysmith requested that FMC not reclaim the entire site as planned, but instead, retain a delineated portion of the Mine Site and existing facilities and infrastructure for future economic development opportunities. This area is known as the "Industrial Outlot" area.

13. As requested by the City of Ladysmith, on January 8, 1998, FMC submitted a request for modification of the Mining Permit Reclamation Plan to permit the use of the Industrial Outlot (“Modification Request”).

14. The Modification Request was detailed in a document entitled “Supplement to the Surface Reclamation Plan for the Flambeau Mining Company, Ladysmith, Wisconsin,” dated December 18, 1997 (“Supplement”).

15. FMC would not have made the 1998 Modification Request if not for the request by the local community.

16. The Modification Request included the construction and operation of the Biofilter.

17. The Supplement identified that storm water from the Industrial Outlot would be directed to the Biofilter and may overflow out of the Biofilter Outlet.

18. Following public notice of FMC’s 1998 Modification Request, several persons, including Al Gedicks, of Plaintiff Wisconsin Resources Protection Council (“WRPC”) and Plaintiff Gauger, petitioned WDNR for a contested case hearing on the 1998 Modification request.

19. After receiving contested case hearing requests, WDNR scheduled and conducted an informational meeting on June 16, 1998, at which time the 1998 Modification Request as outlined in the Supplement was discussed.

20. Following the June 16, 1998 meeting, FMC agreed to make a number of changes to the Modification Request as a concession and compromise

with those that requested the contested case hearing, including Plaintiff Gauger and Gedicks, on behalf of Plaintiff WRPC.

21. After gaining this concession and others, a requisite number of petitioners formally withdrew their petitions for a hearing; as a result, on July 30, 1998, WDNR issued its Findings of Fact, Conclusions of Law and Mining Permit Modification modifying the reclamation plan and formally approving the Supplement (“The 1998 Modification”).

22. The 1998 Modification approved the creation of the Industrial Outlot and the management of storm water from the Industrial Outlot, authorized discharges of stormwater from the Biofilter, and made them subject to all of the applicable Mining Permit terms and conditions.

23. The public process to consider and approve the Modification Request took at least seven months.

E. FMC Has Regularly Informed the WDNR and the Public As To Its Activities at the Mine Site including the Nature of Biofilter Discharges.

24. Since it began operating the mine, FMC has been open, honest and transparent as to its activities onsite.

25. Between 1991 and the present, FMC has submitted Annual Reports to the WDNR. The Annual Reports are extensive and contain detailed summaries of the past year’s activities, including surface water monitoring results, data tables, figures and appendices. These were available to the public.

26. Annual Reports from 1998 to the present discussed the Industrial Outlot and activities related to the same. Annual Reports over the years also discussed stormwater management, site monitoring, Biofilter management and other subjects including community involvement.

27. FMC also submitted Annual Reclamation Reports to WDNR from 1992 to present discussing reclamation activities at the mine site. These were also available to the public.

28. During the time period in which FMC operated the Biofilter, FMC provided consistent, complete and forthright monitoring reports to WDNR about the chemical composition of surface water samples from the former mine site between 1998 through 2011. This included information regarding the copper and zinc concentrations at the Biofilter Outlet. These monitoring reports facilitated efforts to improve the former mine site.

29. Between 2003 and 2011, Plaintiff Gauger and other members of the public requested and received information from WDNR, that FMC provided to WDNR, regarding the chemical composition of surface water measured at the former mine site, including information regarding the copper and zinc concentrations at the Biofilter Outlet.

F. No Evidence Indicates That Any Biofilter Discharges Affected Metal Levels In Stream C Or Flambeau River.

30. Metals found in Stream C are not attributable to outflows from the Biofilter.

31. There were no recorded background (historic) levels of copper, zinc or iron measured in Stream C prior to mining or in 1998 when the Biofilter was constructed.

32. The concentration of metals in storm water at the Biofilter Outlet is routinely similar or lower in concentration than storm water in areas away from the Biofilter.

33. The concentration of copper and zinc in water collected along Highway 27 north and south of the former mine site is typically higher than what was measured at the Biofilter Outlet.

34. On October 26, 2010, the concentration of copper at the mouth of Stream C, where it meets the Flambeau River, was more than twice the concentration of copper measured at the Biofilter Outlet.

35. On June 19, 2011, the concentration of copper at the mouth of Stream C, where it meets the Flambeau River, was nearly three times higher than that measured at the Biofilter Outlet.

36. The concentration of metals in soil samples collected at the mine site was similar to the concentration of those metals in soil samples collected off site, including along Highway 27 at sample sites north and south of the former mine site.

37. Metals such as copper, iron and zinc in the soils at the Flambeau mine site are comparable to naturally occurring levels of those substances in nearby areas outside of the Flambeau mine site.

38. The copper levels in Stream C have not caused or contributed to a measureable increase in the copper levels in the Flambeau River.

39. The zinc levels in Stream C have not caused or contributed to a measureable increase in the zinc levels in the Flambeau River.

G. FMC Actively Monitored For Storm Water Problems.

40. FMC took regular steps to ensure the former Biofilter was working correctly during its operation.

41. For example, FMC completed fall and spring surface water sampling of the Biofilter, pursuant to the Biofilter Management Plan, from 1999 through present and submitted the monitoring results to WDNR.

42. FMC also completed inspections of the Industrial Outlot to monitor for surface water concerns from 1999 through the present, and reported the results to the WDNR.

43. FMC also proposed a monitoring plan for intermittent Stream C in August 2004 to address concerns raised about copper levels found in intermittent Stream C.

H. FMC Has Engaged In Extensive Environmental Improvements Since 1998

44. FMC has spent millions of dollars improving the environmental quality of the FMC site and seeking to identify and remedy any concerns associated with the site.

45. Among other things, FMC completed extensive remediation projects on the site to address elevated levels of copper found in the soils of the Industrial Outlot. These remedial efforts are complete and no longer ongoing.

46. FMC also completed additional extensive remediation projects, and extensive surface water and sediment sampling, on the site in 2004, 2005, 2006, and 2008 to address environmental concerns identified as a result of surface water and soil monitoring at the site, including the monitoring of the Biofilter system.

47. In 2011, FMC obtained approvals for and implemented the Copper Park Business and Recreation Area Work Plan (“Work Plan”), a new, state-of-the-art Infiltration Basin System for managing storm water onsite. FMC has spent at least \$750,000 developing and implementing the Work Plan.

48. Between 1999 and 2009 FMC incurred at least the following yearly costs related to reclaiming and improving the FMC property: \$809,142 (1999); \$404,833 (2000); \$415,664 (2001); \$253,302 (2002); \$747,788 (2003); \$644,963 (2004); \$710,248 (2005); \$1,285,994 (2006); \$1,050,392 (2007); \$521,697 (2008); and \$478,008 (2009). The total amount during these years alone is approximately \$7,322,030.

I. The Former Biofilter Has Already Been Replaced And The Infiltration Basins Present No Risk Of Discharge

49. The Biofilter was designed as a flow through system and was never meant to contain water in a significant storm.

50. The Infiltration Basin System implemented pursuant to the Work Plan is designed for water to infiltrate the ground and has been constructed to prevent water from overflowing (even in once-in-a-lifetime storms).

51. As constructed, each infiltration basin will retain all water in a storm up to 6.6 inches in a 24-hour period. In the 106 years of recorded weather history in Ladysmith, Wisconsin, no storm has ever eclipsed even six inches of rain in 24 hours, and only one storm has ever eclipsed five inches of rain in 24 hours (5.64 inches in 1960).

52. The infiltration basins at the FMC site capture surface water that is from drainage areas that are either asphalted or heavily vegetated. This scenario more readily allows successful use of infiltration basins with relatively little operational maintenance.

J. Defendant's Experts Relating to Environmental Impacts.

53. FMC Expert, Dr. Anne Fairbrother ("Dr. Fairbrother"), is a Principal Scientist with more than 30 years of experience in ecotoxicology, contaminated site assessment, and regulatory science for existing and emerging chemicals in the United States and Europe.

54. Dr. Fairbrother obtained a B.S. in Wildlife and Fisheries Biology, and a D.V.M. in Veterinary Medicine, both from the University of California, Davis.

55. Dr. Fairbrother also earned an M.S. degree and a Ph.D., both in Veterinary Science, from the University of Wisconsin-Madison.

56. Dr. Fairbrother has conducted risk assessments at mines in all sorts of ecosystems, determining risk thresholds for plants, wildlife, and aquatic life.

57. Dr. Fairbrother was a primary author for U.S. E.P.A.'s *Framework For Metal Risk Assessment* and participated in the development of ecological soil screening for U.S. E.P.A.

58. Dr. Fairbrother previously served as U.S. E.P.A. scientist and has authored more than 80 peer-reviewed books, articles, and chapters regarding her areas of expertise.

59. Dr. Fairbrother is former President of the Society of Environmental Toxicology and Chemistry, the American Association of Wildlife Veterinarians, and the Wildlife Disease Association.

60. Dr. G. Allen Burton, one of Defendant's experts, holds four degrees: a B.S. degree in Biology and Chemistry from Ouachita Baptist University, and M.S. degree in Microbiology from Auburn University, a M.S. degree in Environmental Sciences and a Ph.D. in Environmental Sciences with an aquatic toxicology emphasis from the University of Texas at Dallas, and Postdoctoral Fellowship at the Cooperative Institute for Research in Environmental Sciences at the University of Colorado.

61. Dr. Burton is co-editor of the journal *Environmental Toxicology and Chemistry* and has over 150 peer-reviewed publications dealing with ecotoxicology and assessment of aquatic ecosystems. One of his publications is a

guide to assessing and managing storm waters, which was prepared for the U.S. E.P.A.

K. Even Assuming Any Biofilter Discharges Reached Stream C Or Flambeau River, There Is No Evidence That Such Alleged Discharges Caused Harm.

62. Stream C is an intermittent stream marked by no flow over extended periods of the year, and it can only support limited aquatic life.

63. There has been no harm to human health, aquatic life, or the ability of fish to reproduce or survive in Stream C or the Flambeau River as a result of metal concentrations attributable to FMC.

64. There is no evidence of any environmental harm from any overflow from the Biofilter.

65. The concentrations of copper and zinc in Stream C and the Flambeau River are not harmful to humans, aquatic life, or biota.

1. No evidence of harm to humans, aquatic life, biota and the environment.

66. The fact that copper concentrations in or near Stream C many exceed water quality standards for zinc and copper does not mean there are toxicity impacts on animal or plant life (“biota.”)

67. There has been no biological impact to the biota of Stream C from copper and zinc.

68. The benthic microinvertebrate, (organisms lacking a backbone or spine living in the river bed) populations just below the mouth of Stream C are of

exceptional quality, indicating that there are no biologically significant copper and zinc effects on the Flambeau River from Stream C.

69. To the extent any storm water overflow from the Biofilter could contribute any metals such as copper, iron, or zinc to Stream C, the amount would be insignificant and insubstantial and would not alter the concentration of metals in Stream C due to the background conditions in the area.

70. The Index of Biotic Integrity (IBI) values calculated from invertebrate sampling conducted on October 13, 2010, in the Flambeau River downstream of the mouth of Stream C were all in the “good” to “excellent” categories.

71. The IBI values calculated from invertebrate sampling conducted on October 13, 2010, in the Flambeau River upstream of the mouth of Stream C, were categorized as “fair” to “good.”

72. There is no evidence that copper concentrations in Stream C or the Flambeau River have caused damage to biological organisms.

73. Streamflow and sediment containing copper or zinc delivered by Stream C to the Flambeau River have had no biological impact.

74. There is no influence on aquatic organisms from the discharge of copper or zinc from Stream C on the Flambeau River.

75. The discharge from Stream C is not causing any degradation of the invertebrate community in the Flambeau River.

76. Taxa in the Ephemeroptera, Plecoptera, and Trichoptera orders (EPT taxa) that are generally considered sensitive to metals were described as “fantastic” both above and below the confluence of Stream C, primarily because of the large numbers of Ephemeroptera (mayflies), which are the most sensitive to copper.

77. There were no acute or chronic effects seen in bioassays with the water flea (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), or algae (*Selenastrum capricornutum*) using water collected from Stream C.

78. Laboratory bioassays confirm lack of toxicity in water from Stream C. Laboratory bioassays were conducted on water samples collected from Stream C and the unnamed reference stream by Mr. Craig Roesler (“Roesler”) in June 2011. The bioassays used an invertebrate known to be sensitive to metals (the water flea), a representative fish species (fathead minnow), and common algae (*Selenastrum capricornutum*). These bioassays are standard tests used to determine whether water is toxic to aquatic organisms. All tests results were negative, indicating that the water in Stream C is not toxic to aquatic organisms even though total recoverable copper and zinc concentrations exceed the WDNR water quality criteria values.

79. The data on fish biodiversity collected by WDNR’s Roesler in September 2011 show that the water in Stream C is not acutely toxic to fish or the aquatic invertebrates and periphyton that they depend on for food.

80. There is no reason to believe that copper or zinc levels at the mouth of Stream C, either alone or in combination, have posed a risk to human health at any time since monitoring began in 2004.

81. Neither copper nor zinc are a contact poison, so skin contact with contaminated water is of no concern.

82. Accidentally drinking water from either Stream C, or the Flambeau River, will not pose any health risk as the concentrations of the metals in these waters are three orders of magnitude (i.e., 1,000 times) less than the state drinking water standards. The standard for copper is 1.3 mg/L (equivalent to 1,300 µg/L), with preventive action required at 130 µg/L. Zinc is regulated at 2 mg/L (equivalent to 2,000 µg/L), with preventive action at 1 mg/L, but this is only a “public welfare” standard intended to reduce unacceptable taste or odor and zinc is not considered a health threat at these levels.

83. A daily vitamin and minerals supplement contains 2 mg of copper and 15 mg of zinc. This means that at the level of the state standard, a person would have to drink 2 liters (approximately one-half gallon) of water from the Flambeau River at the mouth of Stream C to achieve their required daily dose of copper.

84. State standards include a large margin of safety to ensure that lifetime ingestion of the contaminant will not cause adverse health effects which is why they are less than the daily supplement amounts.

85. At the maximum levels that have been measured by WDNR in the Flambeau River at the mouth of Stream C (36 µg/L copper and 45 µg/L zinc), a person would need to drink over 25 gallons of water on a daily basis to reach copper intake levels equivalent to the state standard, and zinc concentrations are so low they would not influence the taste of the water.

86. There is no reason to have any concerns about possible adverse health consequences in people recreating in the Flambeau River at the mouth of Stream C.

87. During its existence, the Biofilter itself directly supported aquatic life within its confines, including frogs.

88. The mere fact that monitoring levels are above Wisconsin's Acute Toxicity or Chronic Toxicity Criteria does not show an exceedance or violation of either standard, and WDNR and the Wisconsin Department of Justice have advised Plaintiff Gauger and other persons of the same on a number of occasions.

2. *WRPC Member Harold Flater enjoys fishing near the former mine and is not afraid to eat the fish caught there.*

89. Harold Flater ("Flater") is a part owner of Flater's Flambeau Point Resort, which is located at the confluence of the Flambeau and Chippewa Rivers, approximately fifteen miles downstream from the Flambeau Mine.

90. Flater has lived on the Flambeau River for approximately 70 years.

91. Flater's Resort provides guided fishing trips along the length of the Flambeau River from Dairyland Reservoir (approximately eight miles upstream

from the Flambeau Mine) to Holcombe Flowage (approximately twenty-two miles downstream from the Flambeau Mine.)

92. The fishing in the Flambeau River is currently probably as good as it was in 1940.

93. The section of the Flambeau River from Ladysmith down to the Old Port Arthur Dam is one of Flater's favorite places to fish.

94. Flater has caught thousands of fish in the Flambeau River, and although he typically practices turning the fish back, he is not afraid to eat them and he is proud of the fishing on the Flambeau River.

95. Other than the period of time where there was a lot of paper-related pollution in the Flambeau River, the fish guiding business has been fairly consistent on the Flambeau River.

L. FMC Did Not Gain Any Economic Benefit From Handling Storm Water Through The Mining Permit.

96. FMC did not gain any economic benefit from WDNR's decision to regulate FMC's storm water discharges under the Mining Permit rather than a separate WPDES permit, and, in fact, spent a significant amount of money complying with the Mining Permit.

97. As reflected in the below chart, the storm water provisions in FMC's Modification were at least as stringent, and in some cases, more stringent than those contained in an ordinary General WPDES permit.

Tier 2 General WPDES Permit Requirements	1991 Mining Permit and 1998 Modification Requirements
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Develop and implement an SWPPP that utilizes source area control and treatment best management practices.	Develop and implement an Erosion Control Plan, Surface Water Management Plan, Reclamation Plan (including the Supplement), Monitoring Plan and Contingency Plan that utilizes source area control and treatment best management practices.
Perform annual facility site compliance inspection.	File annual report summarizing site activities including but not limited to inspections and monitoring.
Perform quarterly visual inspections.	Does not require but not necessary due to annual chemical monitoring and reporting.
Does not require annual chemical monitoring.	Requires annual chemical monitoring, reporting and response.

M. FMC Has Undertaken and Participated in Extensive Activities Benefitting the Local Community and the Public

98. FMC has undertaken and participated in extensive activities benefitting the local community and the public. Among other things, over the years, FMC:

- Was awarded the United States Department of Labor's Bureau of Land Management 2003 Hardrock Mineral Award for Community Outreach and Economic Security. The award recognized the mine's coordination of projects that contributed to the quality of life and long-term health of the local community;
- Provided funds for construction of a new City and County library;
- Purchased a new fire engine for the City of Ladysmith;
- Leased the Industrial Outlot to the Ladysmith Community Industrial Development Corporation ("LCIDC") for \$10 annually;
- Worked with the Flambeau School Greenhouse and High School in revegetating the site and planting over 2,000 native wildflowers;
- Completed an extensive on-site trail system open to the public for recreation;
- Installed bluebird nesting boxes to provide nesting habitats and opportunities for trail users to observe nesting bluebirds;
- Committed to the State of Wisconsin the property owned by FMC along the Flambeau River would be protected in an undeveloped state;
- Conducted a birding workshop at the Rusk County Community Library and a birdwatch on the reclaimed mine site;

- Donated a parcel of land along the Flambeau River to the City of Ladysmith to be used for construction of the City's Riverview Trail System;
- Partnered with the City of Ladysmith and Flambeau Riders, Inc. to develop non-motorized recreational trails south of the mine site and an equestrian trailhead within the Industrial Outlot which were opened in 2005;
- Hosted trail rides on the Copper Park Equestrian trails;
- Received a report from the Northwest Regional Planning Commission, which after an extensive study, found that "The Flambeau Mine project provides a good example of protecting the environment and providing economic and social benefit to communities surrounding the mine.";
- In 2007, worked with Flambeau High School biology students to raise and plant approximately 100 wildflowers along the access road to the Copper Park Equestrian Trailhead;
- In 2007, received the Green Award from the Greater Ladysmith Area Chamber of Commerce;
- In 2008, 2009 and 2010, partnered with the Rusk Area Arts Alliance to produce artwork of varying media depicting interpretation of the natural beauty of the reclaimed mine site; and
- On Earth Day 2010, worked with volunteers who constructed Aldo Leopold benches placed along the reclaimed mine nature trails.

Respectfully submitted this 14th day of May, 2012.

DEWITT ROSS & STEVENS S.C.

/s/ *Harry E. Van Camp*

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